Rugged Power Supply Distribution Board

PRODUCT DESCRIPTION

The Rugged Power Supply Distribution Board is an airborne conduction-cooled board in 6U custom VPX form factor. The board accepts 28V DC input voltage and generates multiple output voltages required as per VPX/VME standard. The board is designed to withstand harsh environments.

Variants of this board are used in the following airborne Electronic Warfare application
- Aerostat
  - Processing Electronics LRU (PE LRU)
  - Digital Processing LRU (DP LRU)
- Unmanned Aerial Vehicle
  - Processing Electronics LRU (LRU-UAV)
- AEW&CS Radar
  - S-Band Central unit (SBCU)

This board may also be used in other military applications.

KEY FEATURES

- DC Input voltage 18-36V
- Input-Output voltage isolation > 1.5kV
- Remote power-ON
- Board provides output voltage for RF and digital
- Peak to peak ripple < 10mV
- Board provides all VPX and VME voltages from a single source
- Upto 500W power handling
- Protection for
  - Over temperature, over voltage, over current
- Voltage monitoring via power good indicator LEDs/logic signal to processor
- Variants offered
  - VME / VPX power supply board for digital systems (500W)
  - VPX power supply board for RF system with digital modules (350W)

SPECIFICATIONS

Hardware Configuration
- VICOR series (mini and micro) modules
- VICOR EMI filter

Interfaces
- RS 422 for remote power-ON
- Status indicator LED on fascia-plate
Additional information

- Output voltages
  - +6V DC (RF variant)
  - -6V DC (RF variant)
  - +12V DC
  - +5V DC
  - +3.3V DC

MECHANICAL

- Conduction cooled board in 6U custom VPX form factor
- The board weighs 1.8 kg

POWER CONSUMPTION

- Up to 500W power handling
- Input voltage is 28V (18 to 36V) DC

ENVIRONMENTAL

- Qualification: MIL-STD-810E
  - EMI/EMC compliance: MIL-STD-461E
  - MIL-STD-704A/E/F
- Temperature range: −55°C and +125°C (Storage)
  - −40°C and +70°C (Operational)

PART NUMBER(S)

The following variants of this board are available:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>CB10F0</td>
<td>VME / VPX power supply board for digital systems (500W)</td>
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<tr>
<td>CB10F1</td>
<td>VPX power supply board for RF system with digital modules (350W)</td>
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